



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,499	04/03/2001	Gregory A. Peterson	EDAC:013(10793.0013.NPUS0	2017

7590

03/17/2003

Thomas V. Miller
Howrey Simon Arnold & White, LLP
P.O. Box 4433
Houston, TX 77210-4433

EXAMINER

PAIK, SANG YEOP

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 03/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/825,499

Applicant(s)

PETERSON ET AL.

Examiner

Sang Y Paik

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-12 and 14-19 is/are rejected.
- 7) ☒ Claim(s) 7, 13 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandre et al (US 5,828,549) in view of Grasso (US 4,368,777).

Gandre et al shows a heat sink having a tubular body with a substantially flat exterior surface, a plurality of internal fins extending from the interior surface of the heat sink, a plurality of external fins extending from the exterior surface. However, Gandre et al does not show that the fins are generally symmetric around the center line of the tubular body.

Grasso shows a heat sink having the fins with varying lengths that are generally symmetric around the center line of the tubular body.

In view of Grasso, it would have been obvious to one of ordinary skill in the art to adapt Gandre et al with the internal fins with varying length and symmetric around the tubular body to increase the heat exchange as well as to prevent the risk of overheating and damage.

3. Claims 2, 5 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandre et al in view of Grasso as applied to claims 1, 3 and 4 above, and further in view of Butterbaugh et al (US 5,630,469).

Art Unit: 3742

Gandre et al in view of Grasso shows the heat sink device claimed including a fan blowing a cooling air into the tubular heat sink body. However, Gandre et al does not show that the fan is attached to the one end of the heat sink.

Butterbaugh et al shows a fan being attached to the tubular body having a plurality of heat sink fins to introduce a cooling air therein. Butterbaugh et al further discloses that the heat sink fins are made of aluminum.

In view of Butterbaugh et al, it would have been obvious to one of ordinary skill in the art in Gandre et al, as modified by Grasso, with the fan attached to the heat sink tubular body to concentrate the cooling air within the tubular body to increase the cooling effect, and further adapt with the heat sink made of aluminum which are known in the art to provide a good thermal conductivity to increase the thermal transfer of the heat sink.

4. Claims 6, 12 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandre et al in view of Grasso and Butterbaugh et al as applied to claims 2, 5 and 8-11 above, and further in view of Campbell (US 6,339,212).

Gandre et al in view of Grasso and Butterbaugh et al shows the heat sink claimed except the cooled component being a triac.

Campbell shows a cooktop having a cooking plate, a plurality of heating elements, a control house or box, the control box further having triacs as the control electronics that are being cooled by a heat sink having a plurality of fins.

In view of Campbell, it would have been obvious to one of ordinary skill in the art to adapt Gandre et al, as modified by Grasso and Butterbaugh et al, with a cooktop having the claimed heat assembly with the plurality of components such as triacs to be cooled by the heat

Art Unit: 3742

sink to prevent overheating and damage to the control electronics to prolong the life of such control electronics.

Allowable Subject Matter

5. Claims 7, 13 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Martinez (US 6,219,242), Wozniczka (US 4,695,924), Brehm et al (US 4,459,638), Chu et al (US 6,352,103) and Chen (US 5,446,268).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y Paik whose telephone number is 703-308-1147. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on 703-308-1327. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

S. Paik

Sang Y Paik
Primary Examiner
Art Unit 3742

syp
March 13, 2003